

AD-A229 973

1

DTIC FILE COPY

DTIC  
ELECTED  
DEC 17 1990  
S D  
CD

TECHNICAL REPORT

For The

Cargo Movement Operations System (CMOS)  
Draft Software Product Specification,  
Increment I

13 December 1990

Prepared under

Contract Number F11624-88-D-0001/6K12  
CDRL #A004-83

DISTRIBUTION STATEMENT

Approved for public release  
Distribution Unlimited

Prepared for

Standard Systems Center (SSC)  
Deputy Chief of Staff for Acquisition  
Cargo Movement Operations System Division  
Gunter AFB, AL 36114

Prepared by

Science Applications International Corporation (SAIC)  
5 Eagle Center, Suite 2,  
O'Fallon, IL 62269

## Table of Contents

|                   | <u>Page</u> |
|-------------------|-------------|
| <b>Section I</b>  |             |
| Introduction      | ii          |
| Summary           | ii          |
| Conclusion        | ii          |
| <b>Section II</b> |             |
| Results           | iii         |

|                            |                         |
|----------------------------|-------------------------|
| Accumulation For           |                         |
| NMS                        | OR&I                    |
| DTIC                       | TAS                     |
| Unannounced                |                         |
| Justification              |                         |
| By <b>per AD-A 222 482</b> |                         |
| Distribution /             |                         |
| Availability Codes         |                         |
| Dist                       | Avail and/or<br>Special |
| <b>A-1</b>                 |                         |



**SECTION I.**

**INTRODUCTION.**

The purpose of this Technical Report is to review the Draft Software Product Specification, Increment I, CDRL A014-02, which was produced for the Government by Evaluation Research Corporation. The results are provided in the form of Data Item Discrepancy worksheets as requested by the CMOS Program Office.

**SUMMARY. Not Used.**

**CONCLUSION. Not Used.**

**SECTION II.**

**RESULTS.**

**Our analysis is provided in the following Data Item  
Discrepancy worksheets:**

**APPLICATIONS CSCI**

**The following comments are related to the  
Applications CSCI:**

ORIGINATOR CONTROL NUMBER: SPS1-0001  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: EDITORIAL: X

PAGE NUMBER: PARA. NUMBER:

COMMENT OR RECOMMENDED CHANGE:

All editorial comments for the Draft Software Product Specification, Increment I, (Applications CSCI), have been collected on this worksheet and are arranged in page number order.

RATIONALE:

N/A

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION: ACCEPT [ ] REJECT [ ]

COMMENT STATUS: OPEN [ ] CLOSED [ ]

| Cmnt<br>No. | Page<br>No. | Paragraph<br>Number | Comment   |
|-------------|-------------|---------------------|---|
| 1.          | 2           | 1.3                 | Delete "Software Product Specification" from lines 4 & 5 of the first paragraph.    |
| 2.          | 11          | 3.4                 | Change "Table 3.4" to "Appendix E".   |
| 3.          | App B (all) |                     | Change the term "Deskview" used to describe the development language to "DESQview". |

ORIGINATOR CONTROL NUMBER: SPS1-0002  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.2

COMMENT OR RECOMMENDED CHANGE:

Describe the method of selecting listings. Include more detailed instructions for tracking a CSU to its source code.

RATIONALE:

No method of selecting listings is given. The reader must know how to use UNIX commands that are not listed in order to accomplish the loading, finding, and printing or displaying of the source code listings. With the information given, it is doubtful that anyone other than experienced CMOS developers could successfully track a CSU from the SDD to its source code.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0003  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.2

COMMENT OR RECOMMENDED CHANGE:

Provide a cross reference of CSUs to source code listings.

RATIONALE:

The four indices given do not provide the cross references required by DI-MCCR-80029A. The DID states: "This paragraph shall provide an index that cross references each CSC and CSU to the location in the source code listings where they are found." Appendix B (cross reference) bears no relationship to Appendix E (listings). In addition, Appendix E is not organized for reference purposes (the CSUs are not ordered); it is simply a dump of a disk directory.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0004  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02 DATE: 12/13/90  
ORIGINATOR NAME: Gerald T. Love OFFICE SYMBOL: SAIC  
TELEPHONE NUMBER: 272-2999  
SUBSTANTIVE: X EDITORIAL:  
PAGE NUMBER: 11 PARA NUMBER: 3.3 f.

COMMENT OR RECOMMENDED CHANGE:

Delete subparagraph f.

RATIONALE:

This software is marked as "Not Applicable to CMOS, Version 1.0".  
Therefore, it should not be included.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0005  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.4

COMMENT OR RECOMMENDED CHANGE:

Specify the measured resource utilization of the Applications CSCI.

RATIONALE:

Appendix E does not accomplish this as stated. DI-MCCR-80029A requires the "...measured resource utilization of the CSCI..." The CMOS storage resources utilized by the Applications CSCI are not represented by "the number of bytes required to store the executable (object) code or source code." Ultimately, the CMOS storage resources utilized by this CSCI are only those required to store the executable files, and may be represented by the sum of the bytes required for each object file. No measurement is attempted for memory or processing resource utilization.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0006  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: B-1

PARA NUMBER: Appendix B

COMMENT OR RECOMMENDED CHANGE:

State the name by which a CSU may be accessed in the listings. Identify Appendix E as containing the CSU listings.

RATIONALE:

The access name is not indicated in any of the four indices. As a result, there is no linkage between Appendices B and E.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0007  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: B-5

PARA NUMBER: Appendix B

COMMENT OR RECOMMENDED CHANGE:

Explain the presence of CU1A0040.

RATIONALE:

This CSU was absent from the final SDD, Increment I, Volume 3 of 4.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS1-0008  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Gerald T. Love

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: E-1

PARA NUMBER: Appendix E

COMMENT OR RECOMMENDED CHANGE:

Delete the file names that are not Applications CSCI source code listings.

RATIONALE:

Only those source code listing files that pertain to the Applications CSCI should be included. This appendix appears to contain all kinds of files: Communications, system, object, NDS, tests, backups, and samples. See DI-MCCR-80029A, paragraph 10.1.5.2.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

COMMUNICATIONS CSCI

The following comments are related to the  
Communications CSCI:

ORIGINATOR CONTROL NUMBER: SPS2-0001  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.2

COMMENT OR RECOMMENDED CHANGE:

Describe the method of selecting listings. Include more detailed instructions for tracking a CSU to its source code.

RATIONALE:

No method of selecting listings is given. The reader must know how to use UNIX commands that are not listed in order to accomplish the loading, finding, and printing or displaying of the source code listings. With the information given, it is doubtful that anyone other than experienced CMOS developers could successfully track a CSU from the SDD to its source code.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0002  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.2

COMMENT OR RECOMMENDED CHANGE:

Provide a cross reference of CSUs to source code listings.

RATIONALE:

The four indices given do not provide the cross references required by DI-MCCR-80029A. The DID states: "This paragraph shall provide an index that cross references each CSC and CSU to the location in the source code listings where they are found." Appendix B (cross reference) bears no relationship to Appendix E (listings) for two reasons. One, there are no Communications CSU source code listings in Appendix E. Two, Appendix E is not organized for reference purposes (the CSUs are not ordered); it is simply a dump of a disk directory.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0003  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.3

COMMENT OR RECOMMENDED CHANGE:

Delete the assemblers and compilers that do not pertain to the Communications CSCI.

RATIONALE:

This paragraph contains 14 compilers and assemblers. Appendix B notes only 2 tools, "C Language" and "ORACLE PRO\*C".

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0004  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02 DATE: 12/13/90  
ORIGINATOR NAME: Vivian L. Martin OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11 PARA NUMBER: 3.3 f.

COMMENT OR RECOMMENDED CHANGE:

Delete subparagraph f.

RATIONALE:

This software is marked as "Not Applicable to CMOS, Version 1.0".  
Therefore, it should not be included.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0005  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: 11

PARA NUMBER: 3.4

COMMENT OR RECOMMENDED CHANGE:

Specify the measured resource utilization of the Communications CSCI.

RATIONALE:

Appendix E does not accomplish this as stated. DI-MCCR-80029A requires the "...measured resource utilization of the CSCI..." The CMOS storage resources utilized by the Communications CSCI are not represented by "the number of bytes required to store the executable (object) code or source code." Ultimately, the CMOS storage resources utilized by this CSCI are only those required to store the executable files, and may be represented by the sum of the bytes required for each object file. No measurement is attempted for memory or processing resource utilization.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0006  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: B-1

PARA NUMBER: Appendix B

COMMENT OR RECOMMENDED CHANGE:

State the name by which a CSU may be accessed in the listings. Identify Appendix E as containing the CSU listings.

RATIONALE:

The access name for Appendix E is not indicated in any of the four indices. As a result, there is no linkage between Appendices B and E.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0007  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: E-1

PARA NUMBER: Appendix E

COMMENT OR RECOMMENDED CHANGE:

Delete the file names that are not Communications CSCI source code listings.

RATIONALE:

Only those source code listing files that pertain to the Communications CSCI should be included. This appendix appears to contain all kinds of files: applications, system, object, NDS, tests, backups, and samples. See DI-MCCR-80029A, paragraph 10.1.5.2.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]

ORIGINATOR CONTROL NUMBER: SPS2-0008  
PROGRAM OFFICE CONTROL NUMBER:

DATA ITEM DISCREPANCY WORKSHEET

CDRL NUMBER: A014-02

DATE: 12/13/90

ORIGINATOR NAME: Vivian L. Martin

OFFICE SYMBOL: SAIC

TELEPHONE NUMBER: 272-2999

SUBSTANTIVE: X EDITORIAL:

PAGE NUMBER: E-1

PARA NUMBER: Appendix E

COMMENT OR RECOMMENDED CHANGE:

Add the Communications CSCI source code listings.

RATIONALE:

The sole purpose of this directory is to provide the locations of source code listings for the Communications CSCI. However, there are no "CU1C..." entries.

CMOS PMO ACCEPTS COMMENT: YES [ ] NO [ ]

ERCI ACCEPTS COMMENT: YES [ ] NO [ ]

COMMENT DISPOSITION:

COMMENT STATUS: OPEN [ ] CLOSED [ ]